

## Assaults On Nursing Personnel

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## Abstract

**Introduction:** Nurses are frequent victims of workplace violence. Little research has been done that examines multiple factors related to assaults against nurses.

**Purpose:** The purpose of this study was to examine the relationship of the rate of physical injury assault against hospital nurses with characteristics of assailants, of the nursing workforce, unit types, and hospital types. By providing insight into the factors that are associated with assaults on nursing staff, hospitals may be able to develop initiatives that decrease the number of assaults or decrease the severity of injuries.

**Methodology:** This was a cross-sectional, correlational study based on unit-level analysis. A convenience sample of 372 eligible units in 33 hospital members of the National Database of Nursing Quality Indicators® (NDNQI®) were invited to participate. Eligible unit types included adult and pediatric medical, surgical, and medical-surgical, neonate, obstetrics, perioperative, psychiatric, and emergency services. Twenty-seven hospitals submitted data from 180 units. Data were collected under a protocol approved by the University of Kansas Medical Center's Institutional Review Board. Incidents of physical and sexual assaults were recorded in a log available at the nurses' station of each participating unit during October 2012

**Findings:** The analysis revealed the frequency of assaults, the characteristics of the nursing staff most frequently assaulted, unit types on which assaults are most common, and characteristics of assailants. Teaching hospitals in this sample accounted for the most cases of assaults with 68.3% of the total reported, whereas non-teaching hospitals had 22% and academic medical centers 9.8% of the total incidents. Among unit types, neonate, pediatric and obstetric units reported no assaults. Emergency departments, adult and psychiatric units reported the most assaults. All reported assaults were of a physical nature. Out of 92 assaults, 24 resulted in injury, of which 23 were minor and 1 was moderate. Patients were assailants 89 times with the remaining 3 being visitors or other. Assailants were usually male (55.4%) and assaultees were usually female (66.3%). The assaultees were mostly registered nurses (78.3%).

**Discussion:** Most assaults on nurses occurred on adult medical and surgical units, psychiatric units, and in emergency services. Most assaults did not result in injury. Most assailants were patients. To reduce the incidence of assaults on nurses, hospitals could target interventions on these four unit types. Potential interventions could include implementing easy-to-use reporting systems, staff training on patient de-escalation, increase surveillance and security measures.

**Disclosures:** Research was sponsored by the NDNQI® under contract to the American Nurses Association.

## **Introduction**

A hospital work environment places nursing personnel at risk for violence. Nurses are often exposed to patients who are upset, confused, or suffering from mental illness. These patients can express aggression. In addition to patients, visitors and coworkers are also possible perpetrators of assault. Workplace violence against nurses is a serious issue. Nurses may not feel safe enough to come to work and focus on providing quality care. Assaulted nurses might suffer from injuries, as well as have emotional consequences. These factors not only have consequences for nurses, but may impair the quality of care provided on the unit.

While previous studies have focused on characteristics of nursing staff or types of units, related to assault rates, little research has been performed that examines multiple factors related to assaults against nurses. The purpose of this study was to examine the relationship of the rate of physical injury assault against hospital nurses with characteristics of assailants, the nursing workforce, unit types, and hospital types.

## **Research Aims**

The study addressed three research aims.

1. Describe characteristics of assault events:
  - a. Hospitals (teaching status)
  - b. Units (unit types)
  - c. Assaultees (gender, license type)
  - d. Assailants (gender, relationship: patient, visitor, coworker)
2. Describe the characteristics of assaults against nurses:
  - a. Number/rate of assaults

- b. Type of assault (physical/sexual)
  - c. Number/rate of assaults with injury
  - d. Level of injury (none, minor, moderate, major, death)
3. Examine the relationships between assailant and assaultee:
- a. Gender
  - b. Age

## **Literature Review**

Nurses are frequent victims of workplace violence. As the incidence of workplace violence increases and nurses feel less safe at work, they may think of leaving their positions or call in sick more than if they had a safer work environment. In one study, most of the assaulted nurses reported being afraid to go to work. Nurses also referred to the emotional pain caused by these assaults, which goes underreported (McKinnon and Cross, 2008).

Quality of patient care is greatly influenced by nurses not being able to focus on their duties. Our society cannot afford to lose nurses to other jobs because there is already a shortage of nursing professionals. As assaults on nurses are increasing in number, research has examined the characteristics of the individuals and environments involved. However, little research has been conducted to analyze multiple factors related to workplace assaults (WPA).

Nurses are assaulted more than twice as often as any other health care worker. Nurses are also three times more likely to be assaulted in their workplace as any other profession (Campbell et al, 2011). Campbell et al. (2011), investigated the workplace violence risk factors that included gender, age, race, job experience and history of

childhood or adulthood abuse. Four institutions participated in the study, including a suburban facility, a geriatric facility, a large urban medical center and an affiliated community hospital. Participants reported experiences over a 12 month period via an online survey. Results revealed that 30% of personnel experienced work place violence (WPV). Assaults were most prevalent at the geriatric center and least common at the large urban facility. Almost all of the assailants were patients (90.2%), followed by patient relatives (27%) and then coworkers, physicians and supervisors. The findings indicate that nurses who were white, male, older, and those with a history of abuse were at the highest risk for workplace violence.

Similar conclusions were made by McKinnon and Cross (2008) regarding male nurses being more at risk for violence. Unlike the previous study, this research focused on occupational violence and assaults in mental health nursing. The respondents (n=90) from in-patient and community service healthcare employees completed a 16 item questionnaire. The respondents had a variety of skills and experience. All male employees responded that they had been assaulted while somewhat fewer female workers reported experiencing violence (83.7%). As in the Campbell study, the most common assailants were patients (88.9%), but sometimes their family members and friends were involved. Most assaults were verbal, but others involved physical injuries caused by punching, weapons and logrolling with the assailants.

Another risk factor in work place related violence that Nachreiner et al (2007) studied was nursing license type. They related the type of license, RN or LPN, to demographics, which in turn influenced behavior of individuals. A random sample of 6,300 Minnesota nurses self-reported via a survey their demographic information and

experiences for the previous twelve months. The findings indicated that LPNs were slightly more exposed to work violence than RN license holders when supervising patient care, and RNs were more susceptible while providing care. LPNs working with children were at a higher risk of being assaulted. These research findings are helpful because they further determine what kind of tasks and exposure to certain patient populations place the nurses at a higher risk for assaults.

When considering exposure to patient populations that present a higher risk, emergency department nurses stand out. Emergency departments (ED) treat a wide variety of populations. Statistically, nurses in emergency departments are at the highest risk. Due to a lack of reporting systems, the study by Gacki-Smith et al (2009) was conducted to investigate emergency nurses' experiences and perceptions of violence, the types and frequencies of assaults in the emergency departments, and contributing factors to ED violence. Representing all fifty states, 3,465 ED nurses completed an online survey regarding their experiences in the previous twelve months. The results of the survey showed what nurses believe are the precipitating factors that cause violence against them. Some of the factors included care of psychiatric patients in the emergency department, long waits to be seen, patients perceiving staff as uncaring, inadequate staff and lack of enforced visitor policies. Night and weekend shift nurses experienced violence more frequently than regular day shift nurses. Pediatric ED nurses were assaulted less frequently. Another finding indicated that there was less WPV occurring in facilities where policies were instituted to report violence and where there were initiatives put in place by the administration to reduce its incidence. Though this article focused on emergency department nurses, it provides insight into the above mentioned factors contributing to

violence towards nurses. Some of these factors are common to other nursing environments, though less frequent than in ED.

The Emergency Department Violence Surveillance (EDVS) study was launched in May 2009, and published by Institute for Emergency Nursing Research (2011). The purpose of this project was to investigate, on the national level, the extent of the occurrence of workplace violence toward emergency nurses from patients and visitors, the extent of underreporting of such instances, and reporting mechanisms used. The findings indicated that only the most serious incidents were reported, those causing death or serious injuries. Reasons found for the underreporting of verbal abuse and other, less serious physical abuse, are the nurses' belief that they are part of the job, that nurses would be considered inadequate if they were assaulted and because there is a lack of reporting systems. This report is a good resource for factors influencing the underreporting of incidences of assaults. This is important because violence will continue if there is not a good system in place to stop it.

Another perspective for identifying at risk factors focuses on the environment, community and the organizational structure where WPV took place. Evidence suggests that nurses in Canada experience the highest incidence of work related violence when compared to the nurses of similar, westernized, health care systems (Nursing Health Services Research Unit, 2008). Conclusions from the literature review indicate that the main source of physical violence are the patients, and that non-physical violence is most often inflicted by co-workers. The study further identified the factors that contribute to violence, such as nurse and patient characteristics, environment, community, and organizational structure.

It is evident that occupational violence presents a cost burden on healthcare institutions. Due to frequent assaults, sick leave utilization and medical expenses increase. Turnover rate is higher in institutions where work place violence is more common, which leads to the additional cost of replacing staff. The assaulted nurses do not always feel supported by the system which decreases their productivity and causes burnout. There is a need to address assaults on nurses in a more effective way to reduce occupational violence.

### **Methods**

The study used a cross-sectional design. Data analyses were performed using descriptive statistics and correlations. This was a secondary analysis of data from the National Database of Nursing Quality Indicators® (NDNQI) that were used for an instrument development pilot study. Data collection for the pilot study was conducted in October 2012.

### **Sample**

A convenience sample consisting of NDNQI® member hospitals was used for this study. Out of 33 member hospitals invited, 27 hospitals participated, submitting data from 180 units. Participating units were grouped according to type into seven categories: adult medical-surgical, psychiatric, post-operative, emergency departments, pediatric, neonatal and obstetric units (Table 1). The sample included teaching hospitals, non-teaching hospitals, and medical academic centers.

### **Measures and Procedures**

For the purpose of this study, assaults were defined as any incident involving forcible, unwanted physical or sexual contact in the workplace, regardless of who carried out the assault and whether or not there was intent to harm. Only assaults against nursing personnel were counted, including all licensure types (registered nurse, licensed practical



nurse, mental health technician and unlicensed assistive personnel). Accidental contact was not considered an assault even if the nurse was injured. All assaults were reported to NDNQI, regardless of whether there was an injury involved or even though no incident report was filed.

Assault logs were placed at the nurses' station on each participating unit. During the month of October, 2012, assaulted nursing personnel recorded characteristics of incidents in the provided log (Appendix A). Assaultees recorded information as soon as possible after the assault in order to maintain data reliability. Site coordinators from each hospital input data from the logs into an electronic REDCap data collection form that was submitted to NDNQI.

### **Data Analysis**

Descriptive statistics were used in this study. Information reported included type of assault (physical or sexual, or both); injury level (none, minor, moderate, major, death); characteristics of the assaulted nurse, such as license type (RN, LPN, MHT, UAP), employee status (hospital employee, contract), age and gender; and characteristics of the assailant (patient, visitor, or other; age and gender). Correlations were conducted between assailants' and assaultees' age and gender.

## **Results**

### **Research Aim 1: Describe characteristics of assault events.**

NDNQI member hospitals of all types were eligible for the study. Out of 27 hospitals that participated, 5 were medical academic centers, 10 teaching and 12 non-teaching hospitals. Only 8% of the participating medical academic centers reported assaults, while 14% of non-teaching and 44% of teaching hospitals recorded incidents (Graph 1).

Obstetric, neonatal and pediatric units had no occurrences of violence against nurses. All psychiatric units reported assaults, whereas 94% of participating emergency departments, 39% of adult medical-surgical units and 16% of peri-operative units recorded assaults (Graph 2).

Most of the assaultees were registered nurses (79%), followed by mental health technicians (10%), unlicensed assistive personnel (8%) and licensed practical nurses (3%) (Graph3). Males were assailants 60% of the time and females in 40% of incidents. Females were assaultees 79% of the time while males were assaulted 21% of the time (Graph 4).

**Research Aim 2: Describe the characteristics of assaults against nurses.**

Number of assaults varied depending on the type of unit. Adult medical type had the highest number (21) of units reporting a total of 39 assaults. Emergency departments (10) reported 17 incidents. Psychiatric units (8) reported 33 assaults, while peri-operative units (2) had only 3 cases. None of neonatal, obstetric and pediatric units reported assault occurrences (Table 2). All assaults were of a physical nature; none were sexual assaults. There were 92 total assaults of which 24 involved injuries. Only one assault caused moderate level of injury (on an adult medical-surgical unit) and 23 assaults led to minor injuries. Minor injuries were reported on adult medical-surgical (9), psychiatric (8), and peri-operative units (6). There were no injuries causing death (Table 3).

**Research Aim 3: Examine the relationships between assailant and assaultee.**

Correlations between age and gender of assailant and assaultee did not reveal any significant relationships (Tables 1 and 2). The mean age of assaultees was 37 years with the age range 23 to 59 years. Assailants' mean age was 52 years with ages ranging from 9 to 89 years.

## **Discussion**

In this study, the frequency of assaults varied by the type of unit. Neonatal, pediatric, and obstetric units reported no assaults. This finding is not surprising due to the nature of patients on these units. On the other hand, emergency departments, psychiatric, and adult medical-surgical units reported the most assaults. Previous research findings indicate most violence occurs in emergency departments and psychiatric units. The high rate of assaults against emergency department nurses is understandable, due to fewer security measures, screening visitors and urgency of situations. Psychiatric nurses deal with patients with mental illness which places them in potentially dangerous situations. The surprising finding of our study is that the highest number of assaults occurred on adult medical-surgical units. This may have been related to the reduced amount of security for those units or the open door policy of these units. In addition, the findings could potentially be skewed due to a large number of these units participating in our research. Future research should be more representative of all types of units with larger sample sizes.

Though adult medical units reported the most assaults, there were over two times as many assaults per unit in psychiatric units as in any other type. These results relate to the mental and behavioral illnesses that psychiatric patients experience.

All reported assaults were of physical, not sexual nature. This was expected as there are more opportunities for physical assaults. Assaults rarely resulted in injury. Most of the injuries were minor. This result might have been different if we had a larger sample that included more emergency departments, and psychiatric and adult units. Also, with a longer

data collection period, it is likely that more incidents would be reported, including more frequent injuries.

Patients were assailants 97% of the time, followed by patients' family members and then coworkers. More than half of the assailants were male which supports the stereotypical beliefs, whereas two thirds of assaultees were female. There are a larger number of female nurses, which could have affected this finding. Most of the assaulted nursing personnel were registered nurses. Again, registered nurses represented the largest portion of the health care staff that provided care for patients.

### **Conclusion**

Workplace violence against nurses is evident in this and previous studies. There are several issues associated with assaults that do not involve physical injuries. A poor work environment where nurses fear for their safety may lead to a poor quality of care and high nurse turnover, therefore decreasing patient satisfaction and positive outcomes, and increasing hospital cost. Further research is necessary to target reducing high risk factors in order to improve the nursing work environment. At the same time, nurses must be supported by their managers and encouraged to report all assaults. Nurses should be reminded that assaults are not part of their jobs and should not be tolerated.

### **Nursing Implications**

One of the focuses of this study was to identify factors that increase nurse work place violence in order to plan and implement interventions to decrease its occurrence and consequences. Examining unit type differences in assaults on nurses will enable the development of targeted prevention strategies. Another important contribution is the development of a standardized tool for data collection on assaults. By establishing an

appropriate standardized data collection tool we will advance research to support improved nurse safety.

Further study should examine assaults on nurses in unit types with most frequent assaults, such as psychiatric, adult (critical care, step-down, medical-surgical, medical and surgical) and emergency departments. By identifying higher risk factors we can be more effective in preventing violence and injuries. In addition, assessment of security measures in the hospitals with the most frequent assaults would be important to investigate. Future research should include a larger sample size and longer data collection periods to increase validity and generalization of results. This approach will lead to the development and testing of interventions to prevent assaults on nursing personnel.

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**Table1. Unit Types in Sample**

<b>Number of Units in each Unit Type</b>	
<b>Unit Type</b>	<b>Number of Units</b>
Adult Critical Care, Step-down, Medical, Surgical, Med-Surg	99
Psychiatric	15
Peri-Operative	19
Emergency	18
Obstetrics	12
Neonate	9
Pediatrics	8
<b>Total</b>	<b>180</b>

**Table 2. Characteristics of Assaults**

<b>Unit Type</b>	<b>Units w/ Assaults</b>	<b>Number of Assaults</b>	<b>Avg. Assaults per Unit</b>	<b>Physical Assault</b>
Adult	21	39	1.86	39
Psych	8	33	4.13	33
Peri-Operative	2	3	1.5	3
Emergency	10	17	1.7	17
Obstetrics	0	0	0	0
Neonate	0	0	0	0
Pediatrics	0	0	0	0
<b>Total</b>	<b>41</b>	<b>92</b>	<b>2.24</b>	<b>92</b>



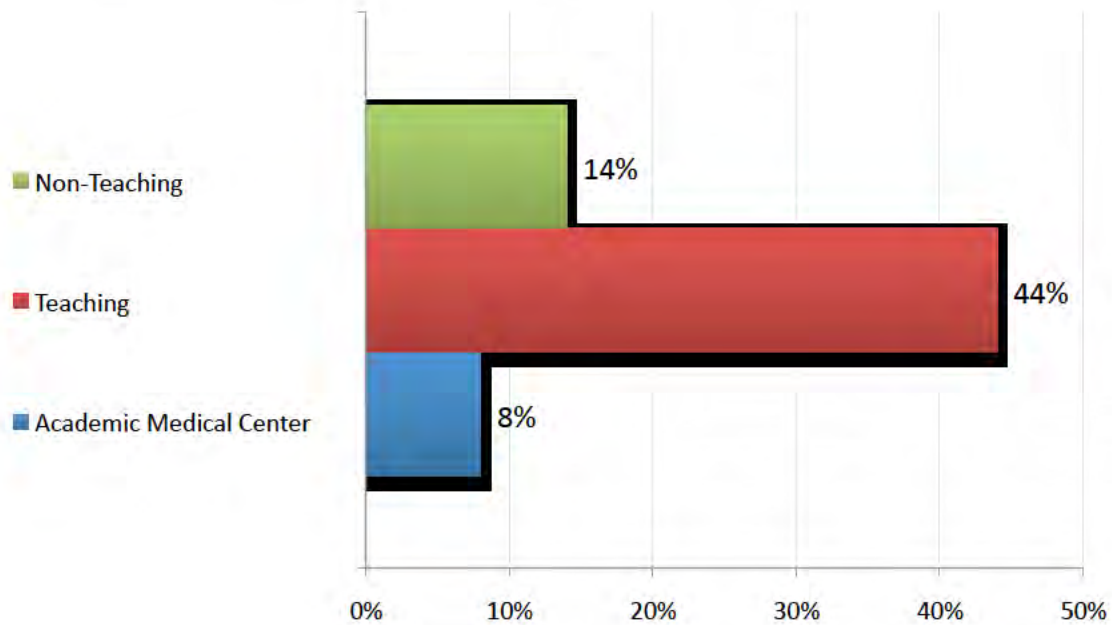
**Table 3. Characteristics of Assault Injuries**

Unit Type	#Assaults w/ Injuries	<u>Injury Level</u>	
		Minor	Moderate
Adult	10	9	1
Psych	8	8	0
Peri Operative	0	0	0
Emergency	6	6	0
Obstetrics	0	0	0
Neonate	0	0	0
Pediatrics	0	0	0
Total	24	23	1

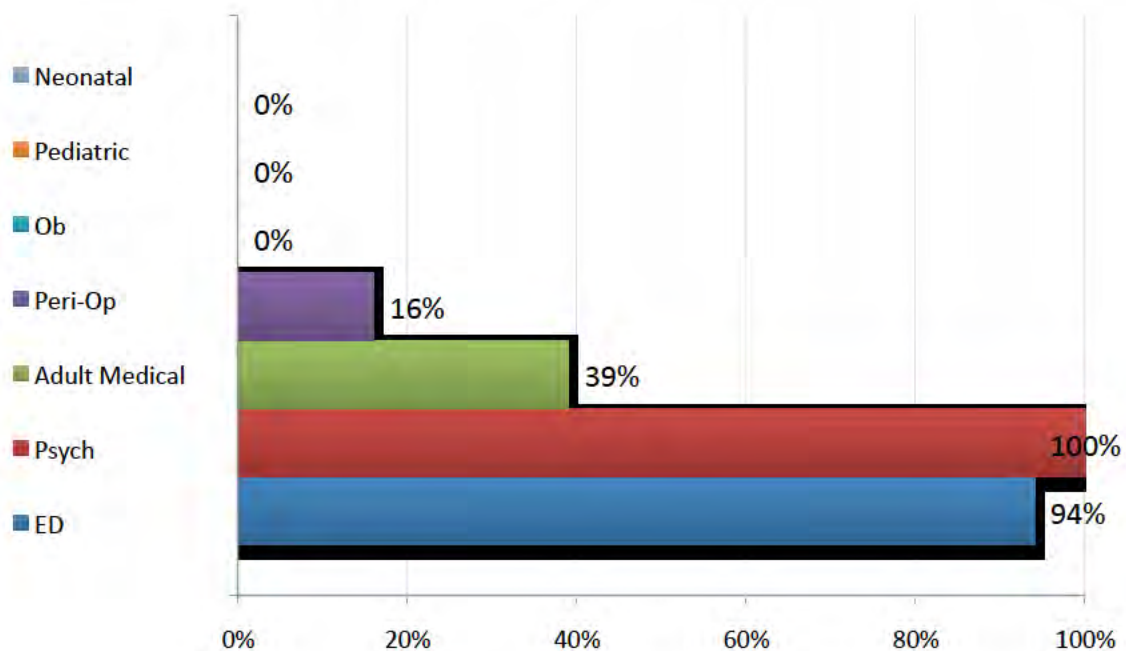
**Table 4. Assailant and Assaultee Gender**

Assaultee	Assailant		
	Female	Male	Total
Female	24 (41%)	34 (59%)	58
Male	4 (29%)	10 (71%)	14
Total	28 (39%)	44 (61%)	72

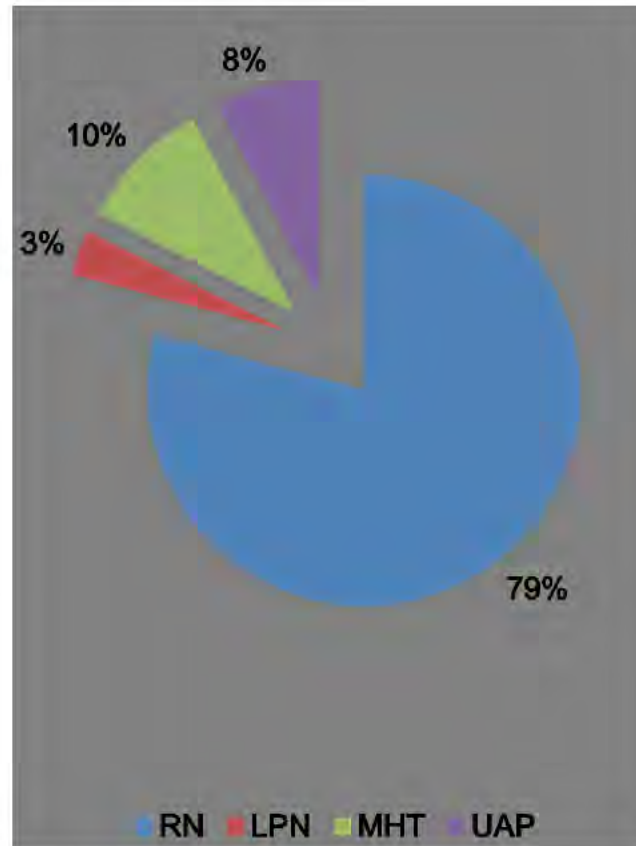
**Graph 1. Percent of Units with Assaults per Hospital Type**



**Graph 2. Percent of Units with Assaults**



**Graph 3. Assaultees by Licensure Role**



**Graph 4. Assailant and Assaultee by Gender**

